

P180A Study Guide for Test 1

Chapter 1

Idealized Models
Standards and Units
Significant Figures and Precision
Vectors, Vector Notation, Vector Addition and Subtraction
Trigonometry

Conceptual Questions: 9, 13, 14,
Multiple-Choice Questions: 1, 4, 5, 6, 9, 12, 13
Basic Problems: 2, 5, 7, 12, 14, 15, 16, 17, 18, 35, 37, 38, 39, 40, 41, 42, 43, 44, 45, 49
Medium Problems: 28, 30, 31, 46, 48, 53, 59, 61, 62, 63

Please do not think you have to do all of these! Many are the same concepts, same equations and same solutions! You have already done many of these on Mastering Physics. These are for practice and possible test questions.

Chapter 2

Displacement, Distance, Average Velocity, Instantaneous Velocity, Acceleration
Motion Equations

Diagrams: 2.6, 2.7, 2.8, 2.12, 2.15, 2.17, 2.20, 2.22, 2.26, 2.28
Example 2.11
Conceptual Analysis: 2.1, 2.2, 2.3, 2.5

Conceptual Questions: 2, 3, 4, 5, 14, 15, 16, 17
Multiple-Choice Questions: 1, 3, 7, 8, 10, 12, 13, 15,
Basic Problems: 5, 6, 7, 8, 12, 14, 16, 25, 27, 28, 33, 35, 36, 48, 49,
Medium Problems: 38, 39, 40, 53, 55, 56, 68, 71, 75, 78, 81

Please do not think you have to do all of these! Many are the same concepts, same equations and same solutions! You have already done many of these on Mastering Physics. These are for practice and possible test questions.

Chapter 3

Projectile Motion
Velocity and Acceleration in a Plane
Uniform Circular Motion and Centripetal Acceleration

Equations 3.3, 3.4, 3.5, 3.8-15, 3.16

Diagrams: 3.4, 3.9, 3.10, 3.11, 3.12, 3.13, 3.16, 3.19, 3.20, 3.23, 3.24,
Examples: 3.4, 3.5,
Conceptual Analysis: 3.1, 3.3, 3.4,

Conceptual Questions: 2, 3, 5, 7, 9, 10, 11, 14
Multiple-Choice Questions: 1,2,3,4,5,6,7,13,14,15,
Basic Problems: 6, 7, 8, 9, 10, 31, 34,
Medium Problems: 12, 14, 15, 17, 18, 19, 22, 45, 52, 53, 55, 64, 65, 67

Please do not think you have to do all of these! Many are the same concepts, same equations and same solutions! You have already done many of these on Mastering Physics. These are for practice and possible test questions.

Chapter 4

Newton's Three Laws
Freebody Diagrams
Mass and Weight

Figures: 4.2, 4.6, 4.10, 4.20, 4.24,
Objects are rest?
Too small to measure?
Fore?
Examples: 4.5
Conceptual Analysis: 4.1, 4.5,

Conceptual Questions: 1, 2, 4, 5, 7, 9, 10
Multiple-Choice Questions: 1, 2, 3, 4, 5, 6, 8, 10, 11, 12, 13, 16
Basic Problems: 1, 2, 3, 4, 5, 6, 7, 12, 13, 14, 16, 24, 25, 28, 29, 30, 31, 32, 33, 37, 38
Medium Problems: 10, 11, 22, 35, 41, 43, 47, 48, 56, 57

Please do not think you have to do all of these! Many are the same concepts, same equations and same solutions! You have already done many of these on Mastering Physics. These are for practice and possible test questions.